

A GRUMBACHER ARTISTS' HANDBOOK

# a guide to oil painting & color mixing

OIL COLOR CHART  
COLOR CIRCLE  
COLOR MIXING GUIDE

HOW TO PAINT...  
Step-by-step Lessons

- Sketching, Perspective
- Copying a Picture
- Using Colors
- Landscapes
- Impasto
- Glazing
- Wet-in-wet
- Techniques and Materials



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# A GUIDE TO OIL PAINTING & COLOR MIXING

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## Lesson One

### BEGINNING THE SKETCH

A simple still-life is a good subject to start with: a pitcher and an orange on a table with a suitable drape for the background.

Set up the easel about 3 to 4 ft. from the subject. Illuminate the subject from one direction to secure maximum contrast between lights and darks.

**THE PRELIMINARY SKETCH.** Artists' charcoal is generally used for making the sketch. When the sketch is completed, it may be sprayed with Tuffilm™ Spray to "fix" it, that is, keep the charcoal from smearing and mixing with the paint. The sketch is not necessarily a finished drawing but rather an outline or guide to indicate the shape of the objects in the painting, their size and location (composition). (Fig. 1.)



FIG.  
1



FIG.  
2

### COMPLETING THE SKETCH

**SHADED PAINTING.** A monochromatic (single color) painting is made to establish shadow areas (darks and lights).

Match the darks and middle-tones with thin washes of Burnt Sienna. Leave the white of the canvas for the light areas. (Fig. 2.)

## STARTING THE PAINTING



FIG. 3

**PAINT SHADOWS FIRST.** Mix the deepest shadow colors and paint over the dark portions of the sketch.

**SHADOW AREAS.** Mix the color you see in the shadow areas and paint them in as bold masses without any detail. Work the middle-tones and light areas in the same way, maintaining a sufficient contrast between all three basic areas of lighting.

Work over the entire canvas all the time, not just on one particular area. Avoid adding white to shadow colors. Suggested mixtures for shadow colors are listed further on.

**LIGHT AREAS.** Lights may be any color in the range from pure white (highlights) to middle-tones. There should always be sufficient contrast between lights and highlights. The lights sometimes blend into the middle tones, especially on soft or rounded forms, and sometimes are sharply delineated areas as on hard, angular or reflective surfaces.

## SUMMARY

1. Paint from dark shadows to light areas.
2. On soft, rounded forms blend the edges of adjacent areas into each other.
3. On hard, angular or highly reflective forms, the lights and darks are painted without blending the edges.
4. Do not concentrate on one object or section but move from one area to another over the entire canvas.
5. Paint details last. Follow the same procedure from dark to light.

6. Make all corrections as you go. The paint can be wiped off or scraped off easily while still wet.

Very often time does not allow for the completion of a painting in a single session. Upon resuming, you might find that some colors appear to be duller (sunken-in) and have less gloss than when originally painted. This is caused by the painting ground which will absorb more oil from certain colors than others. The application of Retouch Varnish before resuming painting will restore the colors to their original appearance and will also facilitate color matching. (See Pages 28 and 29.)

## MEDIUMS AND THINNERS

**Mediums** are normally used to thin the colors or to obtain special effects.

**GRUMTINE™:** An organic solvent, is an improved paint thinner which is superior to turpentine. It is used to thin paints, to clean implements and as an ingredient in mediums.

**TURPENTINE:** Used to thin oil colors and to clean brushes, knives, palettes, etc. Either Grumtine or turpentine is generally mixed with linseed oil or other mediums rather than used alone. Too much thinner alone produces color which is too lean and which may have a tendency to "dust off" when dry.

**LINSEED OIL:** This drying oil is the normal binding medium for oil colors. It can be used alone for painting fat (as opposed to lean), or with other mediums. Too much oil may retard drying of the paint. A popular medium is ½ turpentine-½ linseed oil.

**MG GEL.** A colorless, colloidal transparentizer with the same consistency as tube colors. It is used for making opaque oil colors transparent without making them thinner. Colors mixed with MG® GEL retain the consistency of the tube color.

**ZEC®.** A colorless, colloidal medium for speeding up the drying of oil colors. Zec® must be used according to directions supplied with each tube.

**COPAL PAINTING MEDIUM.** A hard-resin medium for thinning oil colors. Its chief use is for glazing.

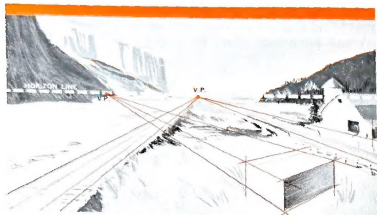


FIG. 4. VANISHING POINTS ARE LOCATED ON HORIZON.

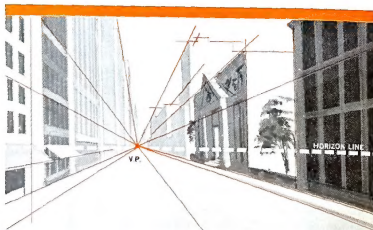


FIG. 5. PARALLEL LINES CONVERGE AT A COMMON V.P.

## Lesson Two

### PERSPECTIVE

#### Perspective in Drawing

**EYELEVEL OR HORIZON LINE.** A horizontal line which corresponds to the eyelevel of the observer.

**VANISHING POINT.** A point on the horizon or eyelevel line at which all lines running into the distance converge. Above eyelevel: all lines converge downward to the V.P. Below eyelevel: all lines converge upward to the V.P. As shown in Fig. 4 on opposite page, there can be more than one V.P. in a painting.

**VERTICAL LINES.** These remain vertical all the time but decrease in height as they approach the horizon line as illustrated by Fig. 5 on opposite page.

**HORIZONTAL LINES.** They remain horizontal and parallel regardless of position.

#### Perspective in Color

Warm, dark and intense colors appear to come forward. Cool, light and dull colors appear to recede.

**MIDDLE GROUND.** Dark shadows are less distinct and are painted lighter. All colors are more subdued than similar ones in the foreground.

**DISTANT BACKGROUND.** Shadows and all colors are indistinct and grayed.



## HOW TO COPY A PICTURE OR PHOTO

You might want to copy or enlarge a picture, or make a large mural for a playroom, children's room or den. Let us assume that an 8" x 10" photograph is to be copied twice as large onto a 16" x 20" canvas.

1. Mark off  $\frac{1}{2}$ " squares on a sheet of tracing paper or Tuffilm clear acetate and tape it over the print.
2. Mark off the 16" x 20" canvas in 1" squares... (twice size).
3. Draw your outline sketch, placing all lines on the canvas to corresponding positions on the photograph.
4. Proceed to paint as in Lesson One.



2X ENLARGED SKETCH

In the case of detailing such things as jewelry, delicate flowers, etc. a portion of the canvas can be further sub-divided.



ORIGINAL

FIG. 6

Original is marked off in squares. Canvas is then marked off in squares twice as large and sketch is made onto canvas.

## Lesson Three

### COLOR THEORY

#### The Three-Primaries System

Any color can be made by mixing the **primaries**. Use the colors in your set which are the closest match to the primaries on the Color Circle, illustrated in full color on center fold-out.

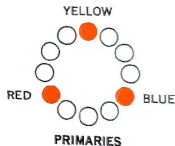


FIG. 7

**Secondary Colors** are midway between the primaries and may be matched by mixing the primaries. Use the colors in your set which are closest to them on the Color Circle.

Red + Yellow = Orange

Yellow + Blue = Green

Blue + Red = Violet

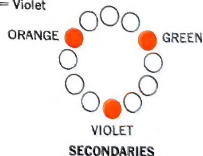


FIG. 8

Intermediates are between a primary and a secondary. Additional intermediates are made by mixing adjoining colors on the Circle. Many intermediates are available to you as separate colors in your set.



FIG. 9

#### INTERMEDIATES

**Complementaries** are directly opposite each other on the Color Circle. You can thereby quickly find which two colors will give you maximum contrast. Mixtures of complementaries will result in grayed color very useful for achieving perspective in color. (See Color Mixing Guide and Page 11.)

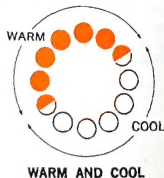
FIG. 10



#### COMPLEMENTARIES

The Color Circle is divided into two parts: **warm** and **cool**. The colors which contain a greater proportion of red or yellow are considered warm; those having a greater degree of blue are cool. Warm colors appear to advance, while cool colors recede.

FIG. 11



#### WARM AND COOL

**EARTH COLORS** are low intensity colors made from natural earth pigments.

**MARS COLORS** are artificially made oxides of the same type as the natural earth pigments. They are intermixable with the natural earth colors.

#### Earth Colors

Burnt Sienna  
English Red (Light Red)  
Indian Red  
Terra Rosa  
Venetian Red  
Burnt Umber

Yellow Ochre  
Raw Sienna  
Raw Umber

Green Earth (Terre Verte)

#### Mars Colors

Mars Red  
Mars Violet

Mars Yellow

**WHITES.** There are four whites available to artists of which three: Superba White (Titanium White), Zinc White and Flake White (also called Lead White) are for general use. The choice of which white to use is one of personal preference. The fourth, MG® WHITE has very specialized uses.

**FLAKE WHITE** (Basic lead Carbonate): This is the oldest of the whites used for oil painting and is the traditional white of the old masters. It is very opaque, the fastest drying of the three, and relatively "warm". It is available in all tube sizes in Finest™ and Pre-Tested® Oil Colors and in ½" x 4" Gainsborough® tubes.

**ZINC WHITE** (Zinc Oxide): This is a somewhat transparent white that produces magnificent tints. It is relatively "cool" and is the slowest drying of the three. It

has a consistency that is excellent for both brush and knife work. It is available in all tube sizes in the Finest™ and Pre-Tested® Oil Colors and in ½" x 4" Gainsborough® tubes.

**TITANIUM WHITE** (Titanium Dioxide with Zinc Oxide): This white combines the great opacity and whiteness of Titanium pigment with the tinting ability of Zinc White. It is relatively "cool" and dries faster than Zinc White. It is available in all tube sizes in the Finest™ and Pre-Tested® Oil Colors and in ½" x 4" Gainsborough® tubes.

**SUPERBA WHITE** (Titanium Dioxide with Zinc Oxide): This is an improved form of Titanium White made with an artists' quality oil that is non-yellowing. It is very opaque, relatively "cool" and marvelous for making tints. It is available in all tube sizes only in Finest™ Oil Colors.

**MG® WHITE** (Titanium White): This is a specially formulated white for textured underpainting and direct painting. When used as directed and in moderate thickness, it becomes dry to the touch in about 2 to 4 hours. It is made only in the 1½" x 6" size.



**MG® WHITE**  
Large Tube  
1½" x 6"  
only

**MG® ZEC**  
Large Tube  
1½" x 6"  
only

**MG GEL**  
Large Tube  
1½" x 6"

**Studio Tube**  
1" x 4"

Refer also to Pages 25 and 27.

## Lesson Four

### COLOR MIXING

**TO MAKE COLORS LIGHTER.** Add white or a lighter value of the same color.

**TO MAKE COLORS DARKER.** Add deeper value of the basic color. Most colors may be darkened by mixing them with their complementary color (indicated by \* in the chart). The resultant grayed color is very useful for middle tones and distant objects.

#### To Lighten

#### Add Lighter

Yellow . . . . .	Yellow or White
Orange . . . . .	Yellow or Blue*
Red . . . . .	Red, Vermilion or White
Violet . . . . .	Blue, Red or White
Green . . . . .	Green or White
Black . . . . .	Gray or White

#### To Darken

#### Add deeper

Yellow . . . . .	Yellow or Violet*
Orange . . . . .	Orange or Blue*
Red . . . . .	Red or Green*
Violet . . . . .	Violet, Blue or Red
Blue . . . . .	Blue
Green . . . . .	Green or Red*

Note: Yellow includes Ochres, Raw Umber, Raw Sienna, and Mars Yellow.

Reds include Earth Reds, Mars Red, Mars Violet, Burnt Umber.

## HUE, VALUE AND CHROMA

Hue is that characteristic of a color which visually identifies it by name...Red, Blue, Green, etc.

Value is the relative lightness or darkness of a color. Low values are dark and high values are light. If you study the Color Circle on the center fold-out, you will notice that the colors become lower in value (darker) as they progress from yellow (the lightest value at the top of the Circle) to violet (the darkest value) at the bottom.

Chroma represents the degree of relative intensity of a Hue. As a color is grayed or neutralized, its degree of chroma is decreased. Thus, a color such as Grumbacher Red may be reduced in chroma by the addition of either a neutral gray or its complementary green without appreciably affecting its Hue.

See COLOR MIXING GUIDE and COLOR CIRCLE center fold-out.

## GRAYS

Grays range from warm to cool. They may be made in either of two ways:

1. Black with White
2. Mixtures of complementary colors with White.

## SOME MIXTURES FOR GRAYS

**Warm.** Ivory Black and White, with possible warm addition such as orange, etc.

**Cool.** Lamp Black and White with possible cool addition such as blue. Payne's Gray and White.

Black, White and Grays are technically not considered colors as they are Values only. The distinction between Gray as Value alone and neutralized or grayed color having Chroma, Value and Hue characteristics can be seen in the CHROMA scale of the COLOR MIXING GUIDE.

# Lesson Five

## PORTRAIT & FLESH COLORS

### Flesh, Eyes, Hair, Shadows

The color combinations which produce good flesh tones must be tinted, lightened, darkened or "grayed", as necessary. There are many more mixtures possible than listed below. Experiment with other combinations if you wish. The mixture that is easiest for you to work with is the one to use regularly.

### BASIC FLESH MIXTURES

1. FLESH COLOR...a prepared color which can be used either full strength from the tube, lightened or darkened.
2. Yellow Ochre, Alizarin Crimson with addition of White.
3. Raw Sienna, Alizarin Crimson with addition of White.
4. Burnt Sienna with addition of White.
5. THALO® Yellow Green, Grumbacher Red with the addition of White.

These mixtures can be adjusted with slight additions of more intense yellows, reds, blues, or greens.

**Flesh Shadow Tones.** Start with a basic flesh color and add the complementary color to gray it. For example, if the basic flesh color is predominantly reddish, add green.

**FLESH HIGHLIGHTS.** Add white to basic flesh colors.



**BASIC MIXTURES FOR HAIR COLORS.** The following mixtures should be lightened or darkened as required.

Blond . . . Yellow Ochre or Raw Sienna and Burnt Umber  
Brown & Brunette . . . Burnt Umber and Burnt Sienna  
Black . . . . . Burnt Umber and Ultramarine Blue  
Gray . . . . . Add White to above mixture for Black  
White . . . . . Add White to above mixture for Gray

#### **BASIC MIXTURES FOR LIPS.**

Men. Burnt Sienna mixed with Alizarin Crimson. Use Alizarin Crimson in the shadow areas. Blend edges into flesh tones.

Women. Burnt Sienna mixed with Alizarin Crimson plus Grumbacher Red or Vermilion. Use darker reds of same hue in the shadow areas.

**BASIC COLORS FOR EYES.** There are three distinct color areas in the eye: White, Iris & Pupil.

The white of the eye should not be painted pure white but should be made from a light flesh color with enough white added to make it appear white.

The Iris or colored portion of the eye, should be a "grayed" color. Only the predominate color should be painted and any other colors only hinted at.

The Pupil should not, in most cases, be pure black but rather one of the mixtures used to make a very black gray. Black may be added to intensify the color. In order to show the pupil in eyes which have a black iris, paint the iris with a black-gray and use black for the pupil.

**Highlights** These can be the same color as used for the white of the eye. The highlight is painted on the side of the source of light. If highlights are warm, shadow areas must be cool and vice versa.

**Shadow Areas** around the eyes should be painted warm or cool depending upon the subject. Avoid using white in the mixtures. Basic flesh colors, grayed by mixture with their complementaries, are best.

## Lesson Six

### PAINTING OUTDOORS

#### Landscapes, Seascapes, Snow Scenes

**THE MATERIALS NEEDED.** The first thing one learns about painting outdoors is that it requires a good, firm easel, a comfortable folding stool and a sketch box. A canvas carrier for the wet painting or a combination canvas-carrier-sketch box-easel is helpful.

**PLANNING THE COMPOSITION.** The important thing to remember is that distance is achieved by means of perspective, not alone in drawing, but in color as well. Study the effect of color and how it can make objects and areas appear to advance or recede.

Once you have your composition planned (you can change the position of the objects or eliminate them for better composition), study it to get the over-all feeling of where the spaces are and the masses lie. Also, determine the large areas of basic colors: i.e. forest, fields, sea, sand, rocks, etc.

#### STARTING THE SKETCH

1. Begin by drawing the horizon line. Avoid dividing the canvas in half.
2. Block in the elements of the composition and establish proper perspective.
3. Refine the drawing of details.

4. Dust off excess charcoal or use Tuffilm™ Spray Fixative to fix the charcoal sketch.

The sequence of painting the various areas is important. Start with the sky, then the basic color for the large masses. When these are completed, start on the shadow areas. After the shadow areas, do the middle-tones and then the light areas. It might be necessary to work back and forth in some areas to maintain the ratio of light to dark and to darken or lighten previously painted shadows. You can reduce this problem greatly by not concentrating on small sections, but by painting all over the canvas.

**HELPFUL HINTS.** If your time is limited, make a quick sketch in color. This painting should show the basic composition, colors and manner of treatment. It can either be refined later, or used as a model for a new painting of the subject done indoors. Quick sketches done outdoors for completion indoors will be appreciated when doing winter scenes, streets, crowds, etc. Paint the sky darker at the zenith than at the horizon.

Avoid painting objects "straight-on" so that the illusion of depth and dimension is lost.

Use perspective and change the composition, if necessary.

All clouds have dimension and shape. There are definite types of clouds which have characteristic shapes. Because the cloud pattern is always changing, complete the painting and then put in the clouds.

Final details in trees, buildings and other objects are painted over completed areas. People in the painting are handled in the same manner. They are painted over the scene; "onto it and into it." The scene is never painted around people.

## HOW TO PAINT TREES

The dramatic effect of trees silhouetted against the sky is well known. When a tree is painted over the sky, the contrast between it and the sky sometimes creates the impression that the spaces or "holes" between branches through which the sky is visible are too light, even though they were painted at the same time as the

Continued on Page 17

## MEDIUMS, VARNISHES, THINNERS

The following mediums, varnishes and thinners are for use with oil colors either for painting purposes, to achieve certain effects, to speed or retard drying, to change gloss, etc.; or as ingredients in the formulation of other mediums. Only the most general uses are described here. The user is urged to get more specific information before employing any of the materials listed here which are not mentioned or described in the text of this booklet. Unless otherwise indicated, mediums, varnishes and thinners in this list are available in 2½ oz. bottles for carrying in sketch boxes, and half pint, pint and quart containers.

**588 BRUSH and HAND CLEANER.** . . . (Available in 2½ oz. and pint sizes only.)

**594 COBALT DRIER (LINOLEATE).** To accelerate drying time. (Available in 2½ oz. and 8 oz. sizes only.)

**587 COPAL PAINTING MEDIUM.** . . . For glazing.

**553 COPAL VARNISH.** . . . . . For final varnish. High Gloss, clear.

**569 DAMAR VARNISH.** . . . . . For final varnish. Medium Gloss, clear.

**538 GRUMINET™** . . . . . Superior to turpentine in all uses.

**558 LINSEED OIL.** . . . For thinning oil colors and use in mediums and formulas.

**560 MASTIC VARNISH.** . . . . . For final varnish. High Gloss, clear.

**570 MATTE VARNISH.** . . . . . For final varnish. No Gloss, Clear.

**575 OIL PAINTING MEDIUM-I.** . . . To impart matt finish to oil colors.

**576 OIL PAINTING MEDIUM-II.** . . . . . To retard drying time.

**577 OIL PAINTING MEDIUM-III.** . . . To accelerate drying time.

**554 PALE DRYING OIL.** . . . . . To thin oil colors and accelerate drying.

# OIL COLOR CHART



ALL COLORS & WHITE: Size IX tube.....1" x 4"  
 WHITE ONLY: Size X tube.....1" x 5 1/2"  
 Size XI tube.....1 1/2" x 6"

## LOW CHROMA COLORS

### COLOR

(As it comes  
from the tube)



### TINT

(White  
added)



### BURNT UMBER



### RAW UMBER



### CHROMIUM OXIDE GREEN



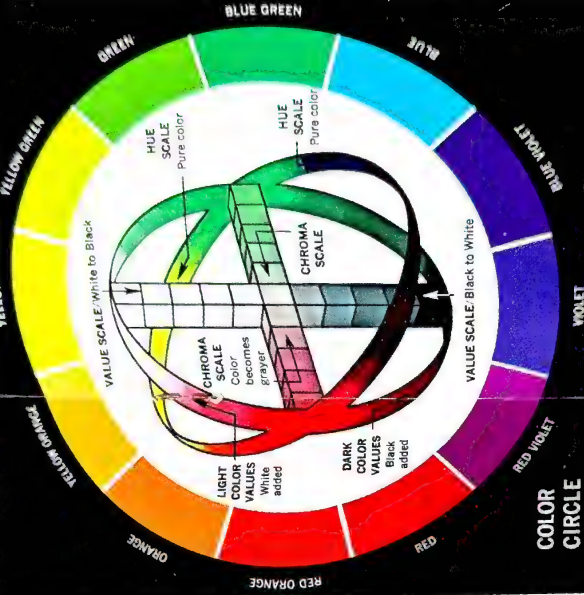
### YELLOW OCHRE



### BURNT SIENNA



### PAYNES' GRAY



## FLESH COLOR MIXTURES

MODIFICATIONS OF GRUMBACHER FLESH COLOR  
(White added to all mixtures)



Mars Violet  
added



Chromium  
Oxide Green  
added



Flesh Color



Yellow Ochre  
added



Grumbacher  
Red  
added

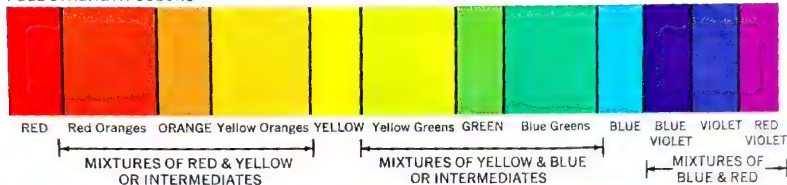
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# HUE, VALUE & CHROMA CHARTS

**VALUE:** The relative lightness or darkness of a color (see color circle). Higher values (tints) of hues shown have been made with addition of white. Note that a color of yellow hue is a color of high value and violet of lowest value.

## FULL STRENGTH COLORS



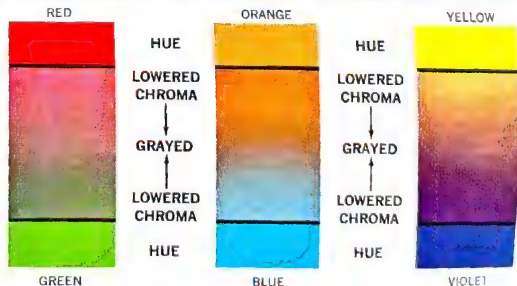
**TINTS (HIGHER VALUES).** White added to full strength colors.

**HUE:** Generally describes a color by name—Red, Blue, Violet, Yellow, etc.

**CHROMA:** The relative intensity of a Hue.

## CONTROL OF CHROMA

The bottom colors on these charts are the complementaries of those at the top. The examples show the effect of neutralizing (graying the color) and thus lowering the chroma by the mixture of complementaries without appreciably effecting the hue.



## MEDIUMS, VARNISHES, THINNERS

Continued from page (A)

**550 PICTURE VARNISH.** (crystal clear) For final varnish—Medium Gloss.

**562 POPPYSEED OIL.** For thinning oil colors and use in formulas. Slow drying.

**584 RECTIFIED PETROLEUM.** . . . . . For thinning oil colors and cleaning implements.

**563 RETOUCH VARNISH.** Temporary protective varnish. Applied with mouth atomizer. See text.

**566 STAND OIL.** Heavy-bodied oil for painting and use in formulas.

**583 SUN-THICKENED LINSEED OIL.** Heavy bodied oil for use in formulas.

**567 TEXTINE™.** For adapting oil colors for painting on textiles.

**568 TURPENTINE.** For thinning oil colors, cleaning and use in formulas.

The following mediums have the same consistency as color in tubes. They are used for purposes described in the text. User should follow directions carefully. They are available in tube sizes indicated.

**540 MG GEL.** Transparentizer and glazing medium. Makes opaque colors transparent without changing consistency of color as it comes from the tube. Permits textured glazing. Studio Size Tubes 1"x 4" and Large Tubes 1½" x 6".

**411 MG ZEC®.** Accelerates drying without changing consistency of color as it comes from the tube. Permits fast-drying textured painting. Large Tubes 1½" x 6".

### VARNISHES and FIXATIVES in SPRAY CANS

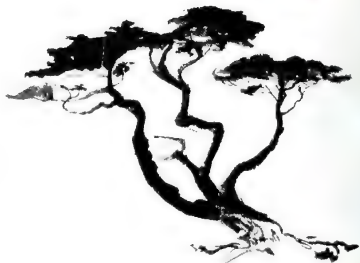
16 oz. size	6 oz. size	
543	643	Tuffilm™ Spray
544	644	Retouch Varnish Spray
545	645	Damar Varnish Spray

rest of the sky. If these "holes" are large and surrounded by elements of the tree, you might have to repaint them a darker color to make them look right. The reason for this is that adjacent colors affect each other. Dark colors seem darker and light colors lighter by contrast.



Except for trees (or foliage) in the extreme foreground at "close-up range", it is impractical to attempt to paint individual leaves. Treat the leaves as masses of color instead. Use shadow and lights to give the mass shape and employ variations of the basic color of the leaves to give the feeling of texture and individuality.

Trees vary in color according to the species and the season of the year. The anatomy of trees varies also with the species, and to some degree with the location. The secret to painting a good tree in an isolated position is to study its growth pattern and follow it in the painting.



## BASIC COLOR MIXTURES FOR TREES

### SPRING AND SUMMER

**Shadow:** THALO® Green or Viridian with Blue or Burnt Sienna.

**Middle-tones:** Chromium Oxide Green or the above mixtures with a Cadmium Yellow or Yellow Ochre added.

**Lights:** THALO® Yellow Green or THALO® Green with a Cadmium Yellow; or, Permanent Green, Light or Deep; with a Yellow or White added to make the color lighter.

### AUTUMN

**Shadows:** Use neutralized colors.

**Middle-tones:** Any Yellow, Yellow Ochre, Red or Brown Earth Color, either alone or in mixtures. Burnt Sienna makes a good red, especially if accented or brightened with Vermilion, Cadmium Orange, Cadmium Reds, Grumbacher Red, or touches of Thio™ Violet.

### WINTER

The painting of the bare skeletal structure of trees requires careful observation of the pattern which the limbs and twigs make against the background. Use the pointed red sable brushes with light strokes to achieve the tapering of branches.

**TREE TRUNKS.** Tree trunks, especially those of larger and older trees, should show texture. This is achieved by varying the basic color and by allowing the brush itself to help create the textural quality. The bark of such trees as Birches, Beeches and the various Palms should be carefully studied in order to make the trunks look natural.

**COLOR MIXTURES.** Burnt Sienna with THALO® Green or THALO® Yellow Green; THALO® Blue and Burnt Umber; Alizarin Crimson, THALO® Blue, Burnt Sienna.

**LEAVES.** (Treated as masses of color)



For highlighting the tops of masses of trees in the distance, a **Stencil Brush**, loaded with color and pounced with a light tapping motion, is very effective. The effect is better if the highlighting is done after the painting has become dry to the touch.

A dry bristle brush, loaded with small amounts of color and dragged lightly over previously painted tree trunks (dry to the touch), will be very effective in adding details and texture.

# Lesson Seven

## SKY AND CLOUDS

### Sky

As previously stated, the sky is always painted darker at the zenith than at the horizon. The intensity of sky colors varies with the seasons and the time of day.

An over-all sunny effect is more to be desired than inclusion of the sun in the painting. In fact, except for sunsets or sunrise scenes, the sun should not be included in the painting. (The sun, veiled by clouds, is one instance where it might be effectively included in the painting.)



### BASIC COLOR MIXTURES FOR SKY.

1. Cerulean Blue alone or with White.
2. Ultramarine Blue, Manganese Blue or Cobalt Blue either in mixtures or with White added.
3. Any of the Grays with the proper tint.
4. Raw Umber with Yellow Ochre and White, or Green Earth with Yellow Ochre and White make stormy skies.
5. The peculiar greenish-black often seen in skies just before a storm can be made by mixing any Yellow with Black with the addition of White to lighten it.



## CLOUDS

Clouds cast shadows and are generally darker underneath than on top. The edges of clouds are generally highlighted. Sunset clouds must be painted from observation. Cloud formations follow definite patterns depending upon the type of cloud. Study the various cloud types then paint them without paying too much attention to detail.



TYPICAL CLOUD PATTERNS



### Basic Color Mixtures for Clouds

1. White, tinted for the reflected light and modified to show the modeling of the cloud, is the basic color. Yellow added to the cloud color will give it a feeling of sunny warmth, while blue or violet will make it seem icy and cold.
2. Gray clouds are made from the various mixtures suggested for grays.
3. Sunset clouds can be any color of the spectrum. Yellows and oranges, made to contrast with deeper colors, create the gold effect.

## Lesson Eight

### REFLECTIONS & TRANSPARENCY

#### Water, Ice, Snow and Glass

**WATER.** Still water with reflections of ships, trees or other objects, presents a problem to most amateur artists. The trick is to paint the basic color of the water first and then, after it has become dry, to paint the reflected subject matter over it.

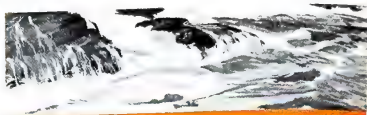
1. Brush strokes are important.
2. Long, smooth horizontal strokes offset here and there by vertical strokes are used for smooth mirror-like surfaces such as mountain lakes.



3. Short, choppy strokes are necessary for rippled surfaces.



4. Swirling, bold strokes are necessary to show the characteristic movement of rough, broken water such as surf.



Water usually assumes the color of the sky. The most generally used colors are in the blue, blue-green, green and gray categories.

**SUGGESTED BASIC COLOR MIXTURES.** Ultramarine Blue and THALO® Green are basic colors for the southern oceans. They can be used alone, be modified by mixing their complementaries, or mixed with green, yellow, or white. The northern and wintry seas are painted with colors that are more subdued or grayed.

Burnt Sienna, Yellow Ochre and White or Yellow Ochre and White make good highlight colors and are also useful for painting the creamy froth of ocean breakers and rough waves. White makes a good highlight for areas of reflected light on the open sea and large bodies of water.

**SNOW.** Snow is generally painted with white tinted with the color of the reflected light. This color can vary greatly. It may be gray, blue, violet or even red or yellow under some conditions. The shadows are most often cool. (Payne's Gray)



**ICE.** The solidity of ice can be depicted by painting it with brush strokes that indicate its structure—flat smooth strokes for large expanses of frozen water; short, sharp strokes for jagged and broken ice. Ice has a translucent appearance.



**GLASS.** Since the background is seen through the glass, it is logical to complete the background first and then paint the glass over it. The effect of transparency is achieved by indicating the outline of the form with appropriate colors and glazing over the area, including the outline, with a thinned color suggestive of the color of the glass itself. Highlights are bright white.



The colors should be transparent. Use either those which are normally transparent or mix opaque colors with MG® Gel.

# Lesson Nine

## Brush and Painting Knife

Oil colors are generally painted with brushes, but occasionally the painting knife or palette knife is used.

Using the knife implies that the application of paint is more or less "troweled on" in heavy layers. Texture is created by the knife itself. The technique is called **Palette Knife Painting** or **Impasto**.

**Impasto**, which means painting with heavy, direct application of color can be done with the brush also. The brushmarks create the textural effect. Because texture is an important part of all impasto techniques, it is necessary to take into consideration the direction of the stroke of the knife or brush.

### Types of Brush Strokes

Brush strokes, whether long or short, straight or curved, generally follow the form or planes of the subject matter.

**DRY.** The brush does not deposit the paint evenly and uniformly over the area of the brush stroke. This results in a textured effect.

**WET.** The brush is loaded with color thinned to a consistency that allows it to flow freely and uniformly over the area of the stroke. This produces a smooth effect.

### Techniques

**UNDERPAINTING.** This is an old technique which consists of completing a painting in either a limited number of colors or in full color, allowing the painting to dry, then painting in details and finally glazing with transparent colors to modify the undercolors.

**MG<sup>®</sup> WHITE.** This is a special Titanium White oil color developed by Grumbacher for underpainting. MG<sup>®</sup> WHITE dries in from 2 to 4 hours, depending upon the thickness of application and the colors mixed with it. It can be used in either of two ways:

1. As a texture base which is painted over when dry, or
2. Mixed with oil colors and painted directly.

(Follow directions supplied with each tube)

**GLAZING.** This technique consists of the application of transparent colors thinly applied over the colors of the dry underpainting. The color of the underpainting shows through the glazes thus modifying them. Glazing is an excellent method for painting transparent objects, reflections in water, indications of depth in water, jewelry etc. Opaque colors can be made transparent with MG<sup>®</sup> GEL for textured glazing. For smooth, or untextured glazing, the transparent colors are thinned with Copal Painting Medium.

**WET-IN-WET.** As the name implies, the technique consists of painting wet or fresh colors into other fresh colors. This can lead to a confused muddying of colors unless a definite plan is adhered to from the start. There are two approaches to the technique:

1. A planned mixing of colors on the canvas as when joining dark, middle and light value areas for soft blends.
2. Applying colors already mixed on the palette to the wet canvas for accents and highlights without blending them into existing masses of color. This requires a delicate touch with brush or knife.

**SCUMBLING.** Brushing or blending wet colors already placed on the canvas to soften outlines, create smooth transitions of values and for other effects. Regular bristle brushes or fan blenders are used.

**FAT OVER LEAN.** This is not actually a technique but rather a painting sequence to be followed when applying paint in successive layers as for underpainting and glazing to avoid cracking of the surface during the drying process. It does not apply to direct painting.

Oil colors dry from the surface down to the canvas. That is, they form a paint film or layer of dry color on top of color which is still wet. A painting done with normal applications of color might take from 4 to 6 months to become dry from the top to the bottom of the paint. A heavy layer of color will take much longer.

A painting sequence employing faster drying (**lean**) colors underneath and slower drying ones (**fat**) on the uppermost layers avoids the formation of a rigid "crust" which would crack under the strain imposed by the drying of the wet colors underneath.

Since it is known that colors containing more oil tend, on the whole, (with some exceptions) to dry slower than those containing less oil, the term "fat colors" is given to the oilier ones and "lean colors" to the others.

## VARNISHING

### RETOUCH VARNISH SPRAY and RETOUCH VARNISH.

Both of these varnishes are identical, except for the method of packaging. Retouch Varnish Spray comes in a handy spray can for easy application, while Retouch Varnish must be sprayed on the painting from the bottle with a mouth atomizer. They are never brushed on, as to do so might disturb the paint which is not yet thoroughly dry. These varnishes may be applied as soon as the paint is dry to the touch.

**Retouching...**Restores the appearance of wet paint to a partially completed, dry painting and facilitates more accurate color relationships and color matching for continued painting.

**Temporary Protection...**A light spray application to protect a newly-completed, dry-to-the-touch painting from the effects of dirt, dust, etc. prior to application of a final varnish when the painting is thoroughly dry.

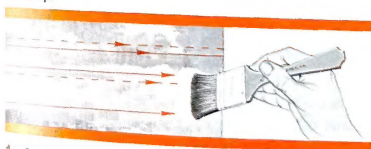
**DAMAR VARNISH SPRAY and DAMAR VARNISH.** Both of these varnishes are made from Damar Gum. One is applied with a brush, the other is sprayed on from a pressurized can. Both may be used as final varnishes.

### HINTS ON FINAL VARNISHING.

1. **Spraying is the easiest method.** Follow the directions on the spray can.
2. **The painting must be thoroughly dry.** This means not just surface dry, but dry all the way through the paint. For an average painting 4 to 6 months should be allowed for drying, longer if the paint was put on thickly.
3. **Varnishing must be done in dry weather in a room as dust-free as possible.** Moisture in brushes or in the air (high humidity) can become trapped in the varnish. This will eventually cause a cloudiness in the varnish called **bloom**. Bloom can only be cured by removing all the varnish completely and doing the job over again, a long and tricky job!

### VARNISHING WITH A BRUSH.

1. Lay the painting flat.
2. Use a soft, flat, clean, dry brush. The brush must be wide enough to carry a good supply of the varnish.
3. The varnish is applied with horizontal strokes, that is, strokes which would be parallel to the floor when the painting is on the wall. Each stroke must overlap and be brushed-out so as not to leave any heavy concentration of varnish. As soon as the surface is completely covered, it is brushed-out again, but this time with strokes at right angles to those of the initial application. These vertical brushing-out strokes must also overlap.



4. A higher gloss is obtained by a second coat of varnish applied in the same way after the first coat is thoroughly dry. Horizontal strokes; then vertical strokes. The necessity of brushing out varnish to make it smooth can not be over-emphasized.



## SPRAY VARNISHES and FIXATIVES



**SPRAY VARNISHES and FIXATIVES.** Large size 16 oz. cans and handy 6 oz. size.

See center fold-out and pages 1, 6 and 16 for more complete information on varnishes, mediums & fixatives:

### HOW TO CLEAN BRUSHES

After painting, thoroughly wash the brush in **Grumtine™** or turpentine, making sure that as much color as possible has been removed, especially near the ferrule.

- Moisten in lukewarm water.
- Use a mild soap or **Grumbacher Brush and Hand Cleaner #588**.
- Rub the brush on the palm of the hand to make a lather and rinse.
- Repeat the washing and rinsing. Reshape the brush to its original form.
- When the brush is clean, place it to dry in such a way that the hair does not come in contact with anything.

## Lesson Ten

### Brush Types, Hair, Uses

Brushes may be classified according to the hair. Bristle, which comes from the hog, is a relatively stiff hair having a natural double tip called a flag. The flags interlock and distribute the paint evenly. Brushes are made in various hair lengths and from bristles having different characteristics of stiffness. Red Sable, which comes from the tail of the Red Tartar Marten, (also called Kolinsky) has a very fine single tip. The hair is very soft. Ox Hair, Sabeline and Russian Sable are other soft hairs used in brushes.

### BRUSH TYPES

**BRIGHTS:** Flat brushes with square tip. Designation is by letter **B** following brush number stamped on handle. Brights are made in bristle or sable.

**FLATS:** Flat brushes with square tips but with longer hair length than Brights. Designation is by letter **F** (Flats) for bristle brushes.

**WHITE BRISTLE, BRIGHTS—4228B**



**WHITE BRISTLE, FLAT—4228F**

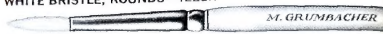


**RED SABLE, BRIGHTS—626B**



**ROUNDS:** Pointed brushes in both bristle and red sable. Designation is by letter **R**.

**WHITE BRISTLE, ROUNDS—4228R**



**RED SABLE, ROUNDS—626R**



**OVALS or FILBERTS:** Oval shaped brushes in both bristle and sable.

**WHITE BRISTLE, FILBERT—4230, Short Hair**



**RED SABLE, FILBERT—1859**



## BRUSHES FOR SPECIAL USES

### FAN BLENDERS

Fan Blenders are generally used by dragging them across wet color on the painting. This produces smooth color transitions between adjacent areas.



WHITE BRISTLE FAN BLENDER—1060

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